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## The Trouble with MARC, and Metadata Alternatives

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# The *TROUBLE with MARC,* and Metadata Alternatives



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2012.4.13

# Lest we forget...

MARC  
II

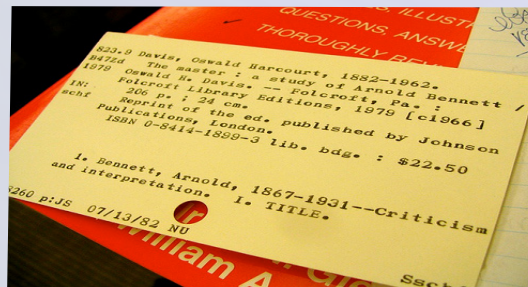
MARC 21

MARCXML

## Evolution of MARC

### Henriette Avram

- MARC format
  - Library of Congress
  - Initiated in 1968
  - Helps computers replicate catalog cards
  - Does not encode for discrete bibliographic elements



# Technology years

**According to Jen Kramer (Joomla! training guide author), technology years are about the same length as dog years**

**7 Earth years = 1 technology year**



## Conclusion:



**MARC is the equivalent of 300+ years old!**



Roy Tennant declares...

MARC

MUST

DIE



(Strong words)

Jason Thomale...



**“Interpreting MARC: where’s the bibliographic data?”** *Code4lib journal* (Sep. 21, 2010) issue 11, [15 p.]; <http://journal.code4lib.org/articles/3832>

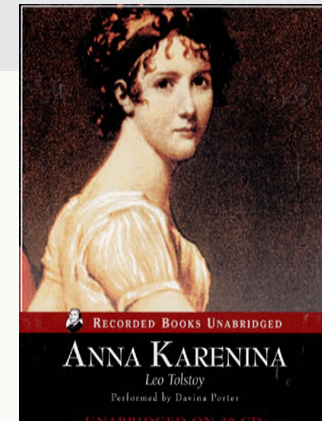
**Offers a good explanation of how MARC records are a replication of the catalog card, and points out that computers don’t speak “catalog card” language.**

**Computers need to see discrete data elements in a structured way.**

## Two examples...

260 |a London, UK ; New York, NY, USA : |b Garamond Press, |c 2009, c2005.

245 10 |a Anna Karenina, |c by Leo Tolstoy. Translated by Constance Garnett, edited by Bernard Guilbert Guerney and Gustavus Spett, with an introduction by Anatole Lunacharsky, and with wood-engravings by Nikolas Piskariov ...



# Catalogs as silos

## Problems with:

- MARC fields
- MARC records
- Catalogs of MARC records



**At no point can discrete data elements be extracted from MARC adequately for incorporation into the Web**



# Gordon Dunsire...



**“The Semantic Web and expert metadata: pull apart then bring together”**

**presented at Archives, Libraries, Museums 12 (AKM12), Porec, Croatia, 2008**

**[eprints.rclis.org/bitstream/10760/7443/1/akm-2008semanticweb.pdf](http://eprints.rclis.org/bitstream/10760/7443/1/akm-2008semanticweb.pdf)**

# **Bibliographic Framework Transition Initiative**



**|| About the Initiative ||**

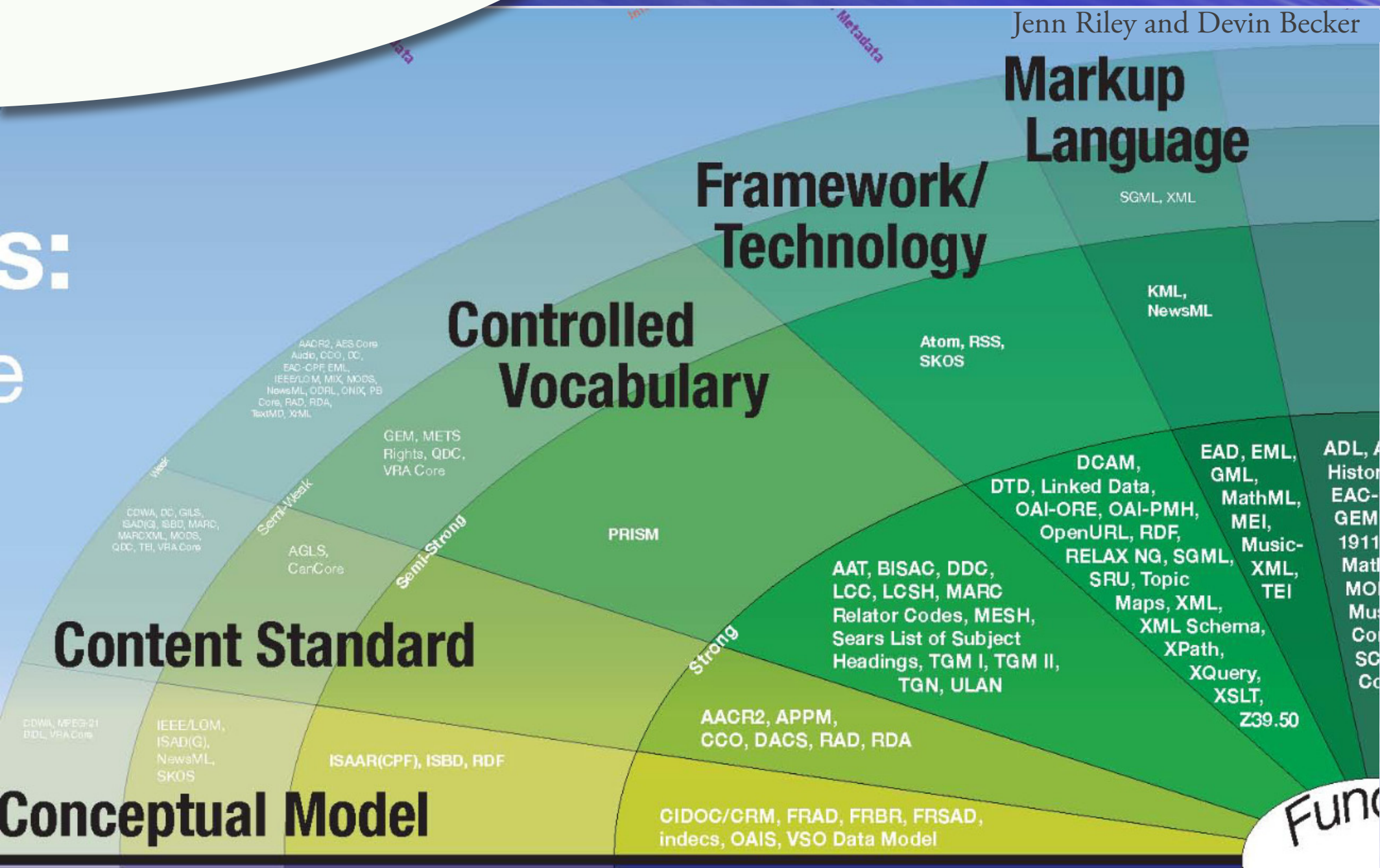
**<http://www.loc.gov/marc/transition/>**

**The Library of Congress is launching a review of the bibliographic framework to better accommodate future needs. A major focus of the initiative will be to determine a transition path for the MARC 21 exchange format in order to reap the benefits of newer technology while preserving a robust data exchange that has supported resource sharing and cataloging cost savings in recent decades. This work will be carried out in consultation with the format's formal partners -- Library and Archives Canada and the British Library -- and informal partners -- the Deutsche Nationalbibliothek and other national libraries, the agencies that provide library services and products, the many MARC user institutions, and the MARC advisory committees such as the MARBI committee of ALA, the Canadian Committee on MARC, and the BIC Bibliographic Standards Group in the UK.**



# Non-MARC Metadata

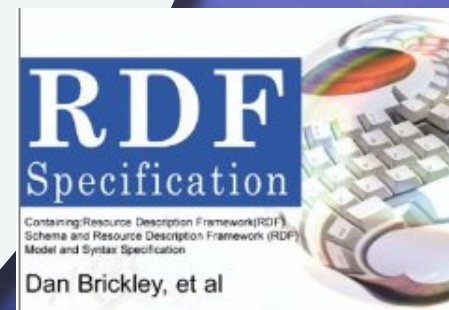
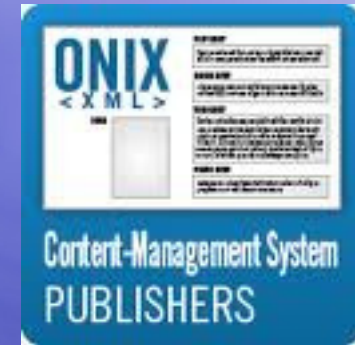
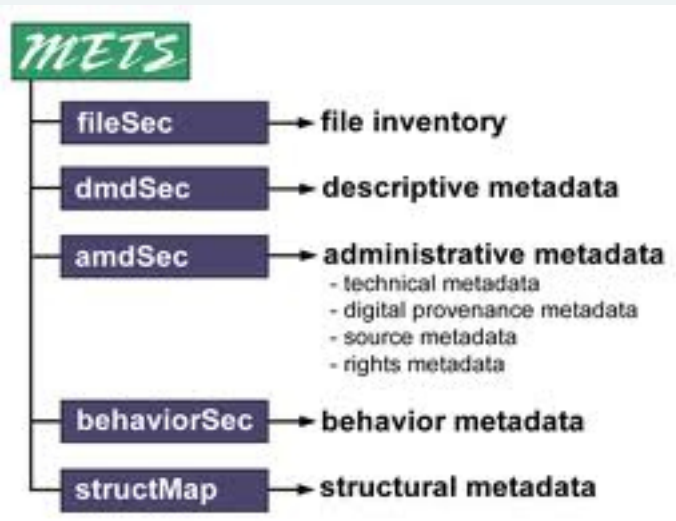
Jenn Riley and Devin Becker



# The Metadata Universe

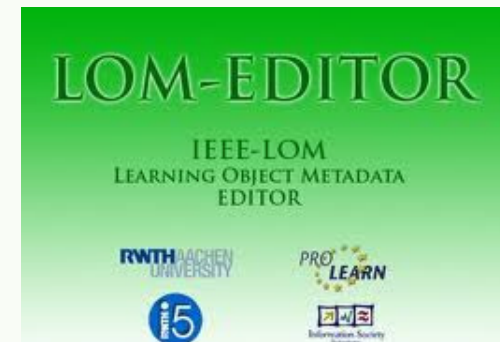
MARCXML

MODS



PREMIS  
Data Dictionary  
for Preservation  
Metadata

And so many more...





# MODS record example



## Digitized Book

```
<?xml version="1.0" encoding="UTF-8"?>
<modsCollection xmlns:xlink="http://www.w3.org/1999/xlink"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns="http://
www.loc.gov/mods/v3" xsi:schemaLocation="http://www.loc.gov/mods/v3
http://www.loc.gov/standards/mods/v3/mods-3-3.xsd">
  <mods version="3.3">
    <titleInfo>
      <title>At Gettysburg, or, What a Girl Saw and Heard of the Battle: A True
      Narrative</title>
    </titleInfo>
    <name type="personal">
      <namePart>Alleman, Tillie Pierce [1848-1914]</namePart>
      <role>
        <roleTerm type="code" authority="marcrelator">aut</
        roleTerm>
        <roleTerm type="text" authority="marcrelator">Author</
        roleTerm>
      </role>
    </name>
    <typeOfResource>text</typeOfResource>
    <originInfo>
      <place>
        <placeTerm type="text">New York</placeTerm>
      </place>
      <publisher>W. Lake Borland</publisher>
      <dateIssued keyDate="yes" encoding="w3cdtf">1889</dateIssued>
    </originInfo>
    <language>
      <languageTerm authority="iso639-2b">eng</languageTerm>
      <languageTerm type="text">English</languageTerm>
    </language>
    <physicalDescription>
      <internetMediaType>text/html</internetMediaType>
```

```
      <digitalOrigin>reformatted digital</digitalOrigin>
    </physicalDescription>
    <subject authority="lcsb">
      <topic>Gettysburg, Battle of, Gettysburg, Pa., 1863</topic>
    </subject>
    <subject authority="lcsb">
      <topic>Gettysburg (Pa.) -- History -- Civil War, 1861-1865</topic>
    </subject>
    <subject authority="lcsb">
      <topic>United States -- History -- Civil War, 1861-1865 -- Campaigns</
      topic>
    </subject>
    <classification authority="lcc">E475.53 .A42</classification>
    <relatedItem type="host">
      <titleInfo type="uniform" authority="dlfaqcoll">
        <title>A Celebration of Women Writers: Americana</title>
      </titleInfo>
    </relatedItem>
    <location>
      <url usage="primary display" access="object in context">http://
      digital.library.upenn.edu/women/alleman/gettysburg/gettysburg.html
      </url>
    </location>
    <accessCondition>Personal, noncommercial use of this item is permitted
    in the United States of America. Please see http://digital.library.upenn.edu/
    women/ for other rights and restrictions that may apply to this resource.
    </accessCondition>
  </mods>
</modsCollection>
```

# Qualified DC example



DC.Title	Commentary on the Epistle to the Galatians	
DC.Title.Alternative	In epistolam Sancti Pauli ad Galatas commentarius 1531. English.	
DC.Creator	Luther, Martin	
DC.Creator.Translator	Graebner, Theodore	
DC.Subject	LCSH	Bible N.T. Galatians. Commentaries.
DC.Subject	CCEL	Classic; Reference
DC.Subject	LCCN	BS2685.L8
DC.Description	"The importance of this Commentary on Galatians for the history of Protestantism is very great. It presents like no other of Luther's writings the central thought of Christianity, the justification of the sinner for the sake of Christ's merits alone. We have permitted in the final revision of the manuscript many a passage to stand which seemed weak and ineffectual when compared with the trumpet tones of the Latin original. But the essence of Luther's lectures is there. May the reader accept with indulgence where in this translation we have gone too far in modernizing Luther's expression--making him 'talk American.'"	
DC.Publisher	Grand Rapids, MI: Christian Classics Ethereal Library	
DC.Publisher.Address URL	mailto:ccel@wheaton.edu	
DC.Contributor.Transcriber	Laura J. Hoelter	
DC.Contributor.Markup	Wendy Huang	
DC.Date.CreatedISO8601	1999-01	
DC.Format	Theological Markup Language	
DC.Identifier	CCEL	ccel/luther/galatians/1.04.htm
DC.Identifier	URL	<a href="http://www.ccel.org/l/luther/galatians/About.htm">http://www.ccel.org/l/luther/galatians/About.htm</a>
DC.Source.Etext	Project Wittenberg	
DC.Source.Etext	URL	<a href="http://www.iclnet.org/pub/resources/text/wittenberg/luther/gal/web/gal-inx.html">http://www.iclnet.org/pub/resources/text/wittenberg/luther/gal/web/gal-inx.html</a>
DC.Source.Print	Grand Rapids, Michigan: Zondervan Publishing House, 1962, c. 1949, 5th ed.	
DC.Language	ISO639-1	en
DC.Rights	Public Domain	

# Future of MARC

- **Problem:** encodes data from *catalog records*, not from *bibliographic entities* directly
- Legacy format
- Will have a split file for a long time
- Someone may create code that will enable its contents to be extended to the Web

245 10 †b 260 †c 830 0 650 0 †y

Type: e ELvl: l Srce: d Relf: Ctrl: Lang: N/A  
BLvl: c Form: GPub: f SpFm: z MRec: Ctry: cou  
CrTp: z Indx: 0 Proj: DtSt: s Dates: 1938,  
Desc: a

040 COD \$c COD  
006 [m c s ]  
007 r \$b u \$d b \$e c \$f u \$g b \$h b \$i b \$j aa  
007 c \$b r \$d b \$e n \$g 024 \$h m \$i a \$j a \$k m \$l a  
034 1 a \$b 20000 \$d W1054200 \$e W1050315 \$f N0401545 \$g N0395445  
043 n-us-co  
052 4313 \$b .B6  
110 1 United States. \$b Forest Service.  
245 10 [Aerial photographs of Colorado. \$p Boulder County, 1938] \$h [electronic resource] / \$c [United States Forest Service].  
246 3 Aerial photographs of Boulder County, Colorado, 1938  
255 Scale ca. 1:20,000 \$c (W 105°42'00"--W 105°03'15"/N 40°15'45"--N 39°54'45").  
260 [Washington, D.C. : \$b United States Forest Service, \$c 1938]  
300 121 remote-sensing images ; \$c 18 x 24 cm.  
500 Title supplied by cataloger.  
500 Flight symbol: BOW.  
500 Vertical images.  
500 Bounding coordinates rounded to 15-second intervals.  
520 121 black and white aerial photographs taken May 8, Oct. 25-26, and Oct. 29, 1938.  
522 Photographs cover portions of the Allens Park, Longs Peak, Ward, Nederland, Panorama Peak, Raymond, Gold Hill, Tungsten, Pinewood Lake, Lyons, Boulder, and Eldorado Springs 1:24,000 topographic quadrangles.  
536 Funded by a grant from the Institute of Museum and Library Services administered by the Colorado Digitization Program for its Western Trails Project.  
540 Contact the Map Library at the University of Colorado for information on copyright restrictions applying to the use or reproduction of these images.  
533 Electronic reproductions. \$b Boulder, Colo. : \$c University of Colorado. Map Library, \$d 2003. \$e 121 digital images : image/JPEG (thumbnail), 72 ppi ; image/JPEG (access), 150 ppi ; image/TIFF (master), 600 ppi. \$n Mode of access: World Wide Web. \$n Scanned on Epson Expression 1640XL scanner. \$n Images processed with Adobe Photoshop 7.0.  
651 0 Colorado \$v Aerial photographs.  
651 0 Boulder County (Colo.) \$v Aerial photographs.  
655 7 Still image. \$2 dct  
655 7 Computer network resources. \$2 local  
710 2 Colorado Digitization Program.  
730 0 BOW.  
856 40 \$z Access aerial photographs online \$u <http://ucblibraries.colorado.edu/aerialphotos/countymap.asp?CID=1&YR=1938> \$q image/jpeg



# Contact me



Zyzniowski, Walter.  
Illinois hiking and backpack  
trails / Walter and George Zyzn  
-- Carbondale : Southern Illino  
University Press, c1985.  
xix, 314 p. : ill. : 22 cm.  
Bibliography: p. [311]-314.  
ISBN 0-8093-1203-4

1. Hiking--Illinois--Guide-book  
2. Backpacking--Illinois--Guide-b  
3. Trails--Illinois--Guide-books  
4. Illinois--Description and tra  
1981--Guide-books. I. Zyz  
George, 1961- II. Title



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402-472-2535



## Old cataloging training graphic:

